

# Montgomery County Fire and Rescue Services Performance Plan

Tom Carr, Fire Chief  
April 25, 2008



# CountyStat Principles

- **Require Data-Driven Performance**
- **Promote Strategic Governance**
- **Increase Government Transparency**
- **Foster a Culture of Accountability**



# Agenda

- Welcome and Introductions
- Impact of MCFRS on Montgomery County
- MCFRS At-A-Glance
- Saving Plan
- Hiring Freeze
- Organizational Chart
- Headline Measures
- Overtime
- Wrap-up and Follow-up Items



## Contribution to Montgomery Results

- **A Responsive and Accountable County Government**
- Affordable Housing in an Inclusive Community
- An Effective and Efficient Transportation Network
- Children Prepared to Live and Learn
- **Healthy and Sustainable Communities**
- **Safe Streets and Secure Neighborhoods**
- A Strong and Vibrant Economy
- Vital Living for all of Our Residents



## 2007 Resident Survey Final Report of Results

Service Quality	Excellent	Good	Fair	Poor
Fire Services	45%	50%	5%	1%
Ambulance or emergency medical services	43%	47%	10%	1%
Service Importance	Essential	Very Important	Somewhat Important	Not at All Important
Fire Services	77%	22%	2%	0%
Ambulance or emergency medical services	76%	22%	2%	1%

**Residents view MCFRS services as essential to the community**



# Fire and Rescue Services At-A-Glance (1 of 3)

What MCFRS Does and for Whom	How Much
<p><b><u>Overall</u></b></p> <p><b>The Mission of the Montgomery County Fire and Rescue Service is to protect lives, property, and the environment with comprehensive risk reduction programs; and safe, efficient, and effective emergency response provided by skilled, motivated, and compassionate service providers representing Montgomery County's diverse population.</b></p>	<ul style="list-style-type: none"> <li>□ FY08 Budget - \$188.8 million</li> <li>□ 1126 County-employed emergency positions</li> <li>□ 709 volunteer emergency personnel (FFII and above or EMS Provider I and above)</li> <li>□ 113 County-employed tech. and admin. positions</li> <li>□ 45 work sites, including 34 stations</li> <li>□ 32 engines, 24 ambulances, 17 paramedic units, 14 aerial units, 7 heavy rescue squads, 6 tankers</li> </ul>
<p><b><u>Emergency Response</u></b></p> <p>Response to emergency medical, fire, rescue, hazardous materials, and destructive device incidents throughout the County. Incidents to which MCFRS responds occur on or in residences, other buildings, vehicles, highways, rail systems, woodlands, farmland, parks, and bodies of water.</p>	<p><b><u>FY07 figures:</u></b></p> <ul style="list-style-type: none"> <li>□ FY07 Budget: \$124 million; WYs: 886.5</li> <li>□ 98,413 incidents</li> <li>□ 172,780 unit responses</li> <li>□ 75,050 EMS incidents; 908 structure fires</li> </ul>
<p><b><u>9-1-1 Call-taking and Dispatch</u></b></p> <p>MCFRS personnel at the Emergency Communications Center take calls for assistance and dispatch MCFRS resources. They also provide pre-arrival instructions to the 9-1-1 caller as appropriate.</p>	<ul style="list-style-type: none"> <li>□ FY07 Budget: \$6.2 million; WYs: 59.8</li> <li>□ Emergency calls processed (FY07): 103,758</li> <li>□ 9-1-1 calls answered (FY07): 139,770</li> <li>□ Non-emergency calls– incoming/outgoing: 188,300</li> </ul>



## Fire and Rescue Services At-A-Glance (2 of 3)

What MCFRS Does and for Whom	How Much
<p><b><u>Fire Marshal's Office</u></b></p> <p>Fire Code Enforcement (FCE) personnel inspect buildings for fire code violations, conduct system tests, and review building plans for fire code compliance. FCE personnel provide guidance to building owners on correction of violations and conduct re-inspections to ensure code compliance.</p> <p>Fire &amp; Explosive Investigations (FEI) personnel perform investigations of major fires, potential arsons, fires involving injuries or deaths, and incidents involving actual or potential destructive devices. FEI also has a certified accelerant detection dog to assist in arson investigations.</p>	<ul style="list-style-type: none"><li>□ FY07 Budget: \$5.03 million; WYs: 36.9</li><li>□ Fire incidents investigated in FY07: 440</li><li>□ Explosive incidents investigated in FY07: 254</li><li>□ FY07-08 data for FCE is under development</li></ul>
<p><b><u>Training of Firefighter-Rescuers</u></b></p> <p>MCFRS firefighter-rescuers receive required training at the Fire-Rescue Training Academy, through drills at stations and in the field, and via on-line courses to achieve certifications in fire, rescue, EMS, hazmat, and command competencies. Potential recruits are mentored via the Candidate Physical Ability Training (CPAT) program to develop their physical abilities demanded by the job.</p>	<ul style="list-style-type: none"><li>□ FY07 Budget: \$5.9 million, WYs: 69.7</li><li>□ 321 classes taught (FY07)</li><li>□ 7583 students attending (FY07)</li><li>□ 315,284 student hours (FY07)</li></ul>



## Fire and Rescue Services At-A-Glance (3 of 3)

What MCFRS Does and for Whom	How Much
<p><b><u>Community Outreach</u></b></p> <p>MCFRS provides fire safety, injury prevention, risk reduction, child safety seat inspections, and public information through its Community Outreach Section. Emphasis is placed on children, the elderly, health care facility operators, residents of high-rises, and immigrants. The PIO provides information to the public via the broadcast and print media and via the internet.</p>	<ul style="list-style-type: none"> <li>□ FY08 Budget: \$626,311; WYs: 4.0</li> <li>□ 0 drownings for 4 yrs due to River Safety TF effort</li> <li>□ 80% of fire safety survey respondents have never conducted a home fire drill</li> <li>□ ~10,000 media calls handled by PIO</li> <li>□ ~150-175 news advisories, releases &amp; notifications</li> </ul>
<p><b><u>Firefighter-Rescuer Wellness and Safety</u></b></p> <p>The Fire-Rescue Occupational Medical Section provides annual physicals, coordinates medical care for injured personnel, and provides related wellness services to keep our personnel healthy and return those injured to active service. Safety Officers inspect equipment and facilities and oversee personnel safety at major incidents. The SCBA Shop inspects and repairs SCBA.</p>	<ul style="list-style-type: none"> <li>□ FY07 Budget: \$10.3 million, WYs: 11.0</li> <li>□ 1738 annual physicals conducted in FY07</li> <li>□ 24 “life saves” of firefighter-rescuers by FROMS</li> <li>□ 1000 personal protective gear inspections</li> <li>□ 60 work site inspections</li> <li>□ 20% reduction in WC and indemnity claims</li> </ul>
<p><b><u>Apparatus Management</u></b></p> <p>The Apparatus Section implements the Apparatus Management Plan. Apparatus and equipment purchase, inspection, testing, and maintenance is overseen by this Section with the exception of that handled directly by LFRDs. The new MCFRS central maintenance facility will be operated by the Apparatus Section.</p>	<ul style="list-style-type: none"> <li>□ FY07 Budget: \$4.37 million; WYs: 5.0</li> <li>□ Ordered (FY07): 3 rescue squads, 1 EMS unit</li> <li>□ Received (07): 17 EMS units, 2 ambulance buses, 1 engine, 1 medical care support unit (MCSU)</li> <li>□ 286 DOT-mandated vehicle inspections performed</li> <li>□ ~ 75-100 pumps tested; 23 aerial devices tested</li> </ul>





## FY08 Savings Plan

Total FY08 Reduction: \$1.47 million, representing a 1.3% savings

### Savings

▪ Lapses for vacant non-uniform positions	\$320,000
▪ Cancel several PSTA classes	\$190,000
▪ Reduce overtime (OT) by conducting a portion of annual physicals on regular shift	\$150,000
▪ Liquidate encumbrance for uniforms	\$150,000
▪ Conduct re-certifications for Special Operations personnel while on duty	\$120,000
▪ Reduce fire station maintenance	\$100,000
▪ Reduce peer fitness trainer assessment staffing	\$ 90,000
▪ Reduce OT in field ops by reassigning EMT Capt. from PSTA	\$ 84,000
▪ Reduce OT for Homeland Security, Honor Guard, and PIO	\$ 72,000
▪ Reduce OT in field ops by reassigning Lt. from Recruiting	\$ 71,000
▪ Reduce archiving costs in Volunteer Services	\$ 67,500
▪ Reduce Code Enforcement equipment purchases	\$ 50,000



## FY08 Savings Plan (cont.)

### Impact

- Increased response times when units are taken out of service to accomplish annual physicals, re-certifications, etc.
- Canceling of classes would reduce access to training, delay certification and promotion eligibility, and delay availability of qualified firefighter-rescuers
- Decreased coordination of EMT training at PSTA and instructor capacity
- Delayed peer fitness assessments mandated by collective bargaining
- Increase the backlog of maintenance needed at aged fire stations
- Transfer of Lieutenant would negatively impact increased diversity of recruits
- Delay in inspection times due to delayed equipment purchases for FCE
- Delay new effort to scan personnel records of volunteers
- Reduced stock of available uniform items
- Reduced videotaping of complex incidents and various MCFRS events
- Reduced Community Emergency Response Team (CERT) resources
- Fewer appearances for Honor Guard and Pipes & Drums Corps



## FY09 Savings Plan

Total FY09 Reduction: \$6.61 million

### Strategy

### Savings

- |  |             |
|--|-------------|
| ▪ Redeploy staff from Hillandale Truck 712 to support opening of new Germantown West station                           | \$1,870,000 |
| ▪ Redeploy night-time staffing from Station 11 and Station 17 ambulances to support opening of Germantown West station | \$ 870,000  |
| ▪ Reduce PSTA classes and overtime for instructors   | \$ 540,000  |
| ▪ Reduce OT for backfilling to accommodate annual physicals  | \$ 300,000  |
| ▪ Reduce operating expenses of Operations Division   | \$ 250,000  |
| ▪ Reduce OT for Special Operations recertification/training  | \$ 240,000  |
| ▪ Reduce flex unit operations from 12 hours to 10 hours per day  | \$ 201,000  |
| ▪ Reduce operating expenses of Apparatus Section   | \$ 200,000  |
| ▪ Reduce station maintenance funding by half   | \$ 200,000  |



## FY09 Savings Plan (cont.)

### Strategy (cont.)

### Savings

- Redeploy Battalion Chief assigned NIMS-National Incident Management Sys. responsibilities to reduce field B/C overtime \$ 200,000
- Eliminate field staff overtime for Child Safety Seat Program \$ 200,000
- Redeploy Community Emergency Response Team (CERT) Program Captain (MCFRS liaison to HSD) \$ 180,000  
to reduce field staffing overtime
- Redeploy Spanish-speaking Captain - serving as backup PIO, Latino liaison, and event coordinator - to the field to avoid OT costs for backfilling his field position \$ 170,000
- Other savings (11 items) combined \$1,189,760



## FY09 Savings Plan (cont.)

### Impact

- Redeployment of Truck 712 personnel will reduce the MCFRS aerial fleet by one unit (6.7% reduction) with associated loss of capacity
- Reduction in EMS transport units
- Reduction in hours of operation for EMS flex units, thus decreasing countywide availability of transport units, therefore increasing transport time to hospital
- Canceling of classes would reduce access to training, delay certification and promotion eligibility, and delay availability of qualified firefighter-rescuers
- Elimination of Battalion Chief assigned National Incident Management System (NIMS) responsibilities, which may jeopardize federal grant funding if NIMS requirements are not met



## **FY09 Savings Plan (cont.)**

### **Impact (cont.)**

- Increase backlog of maintenance needed at aged fire stations
- Reduced availability of Spanish-speaking PIO and reduced liaison with Latino community if Captain redeployed to field
- Increased response times when units are taken out of service to accomplish annual physicals and re-certifications of on-duty personnel
- Reduced inventory of on-shelf EMS supplies, maintenance supplies, and replacement equipment
- Loss of Captain-level expertise serving as CERT Coordinator
- Delayed installation of child safety seats in some cases



# Hiring Freeze

## Impact

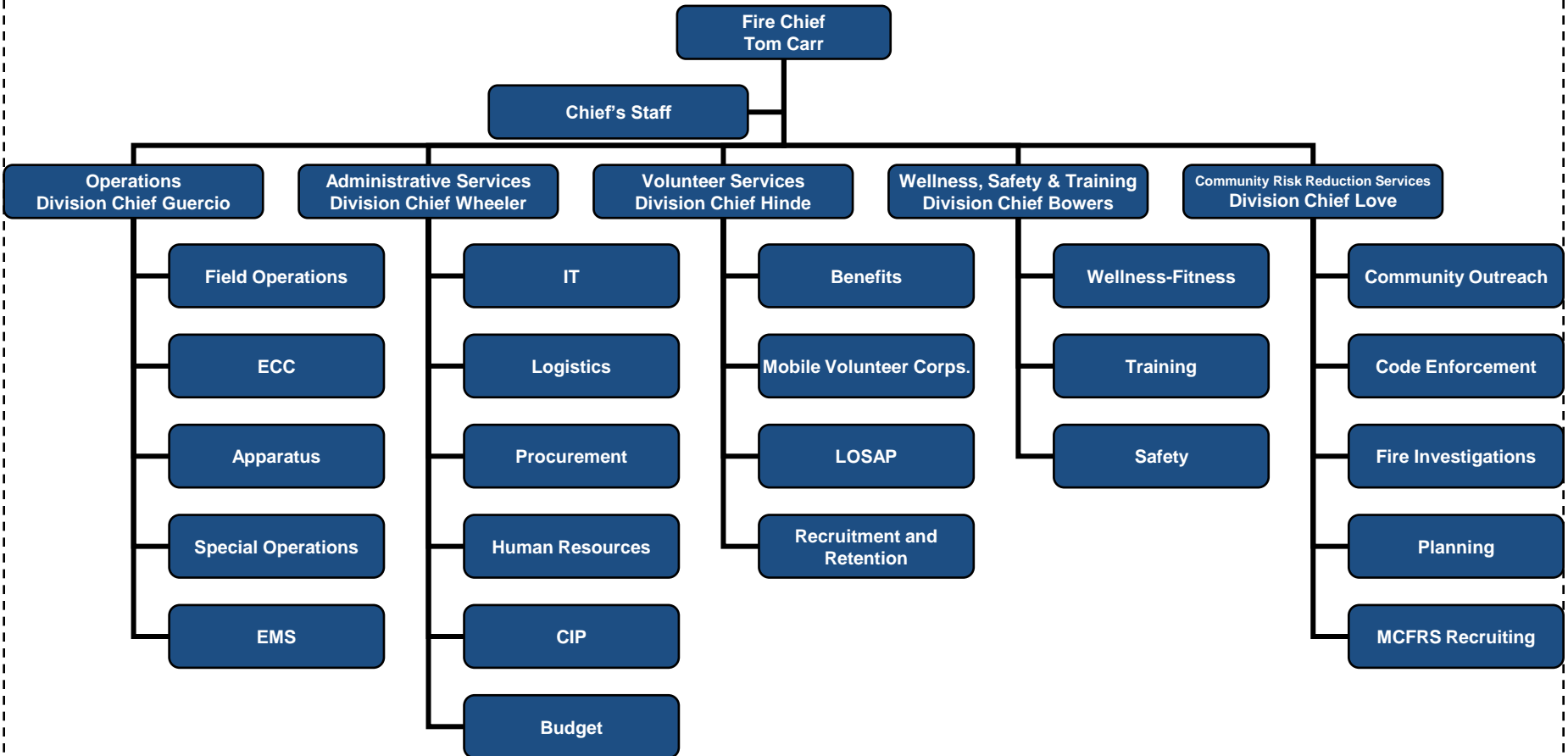
Following positions remain unfilled, with grade level shown in ():

- **Volunteer Services Division: Manager III, Admin. Spec. (21)**
- **Administrative Services Division: Human Resources Admin Spec. (23), Facilities Program Manager (23)**
- **CRRS Division: Recruiting Admin. Spec. (21)**
- **Operations Division: Senior Supply Tech. (17), Mechanic (17)**

**These unfilled positions result in delayed implementation of programs, reduced work capacity, and unfulfilled goals/objectives which adversely impact service to our external & internal customers as well as departmental performance.**



# Fire and Rescue Services Organizational Chart





## Headline Measures

- 1) Percentage of Residential Structure Fires Confined to the Room of Origin
- 2) Response Time to Advanced Life Support and Structure Fire Incidents
- 3) Number of Residential Fire Deaths and Injuries
- 4) Service Delivery Cost Per Primary Unit Response
- 5) Percentage of Accreditation Criteria Met
- 6) EMS Service Quality Measure TBD
- 7) Prevention Programming Measure TBD
- 8) Departmental Efficiency Measure TBD



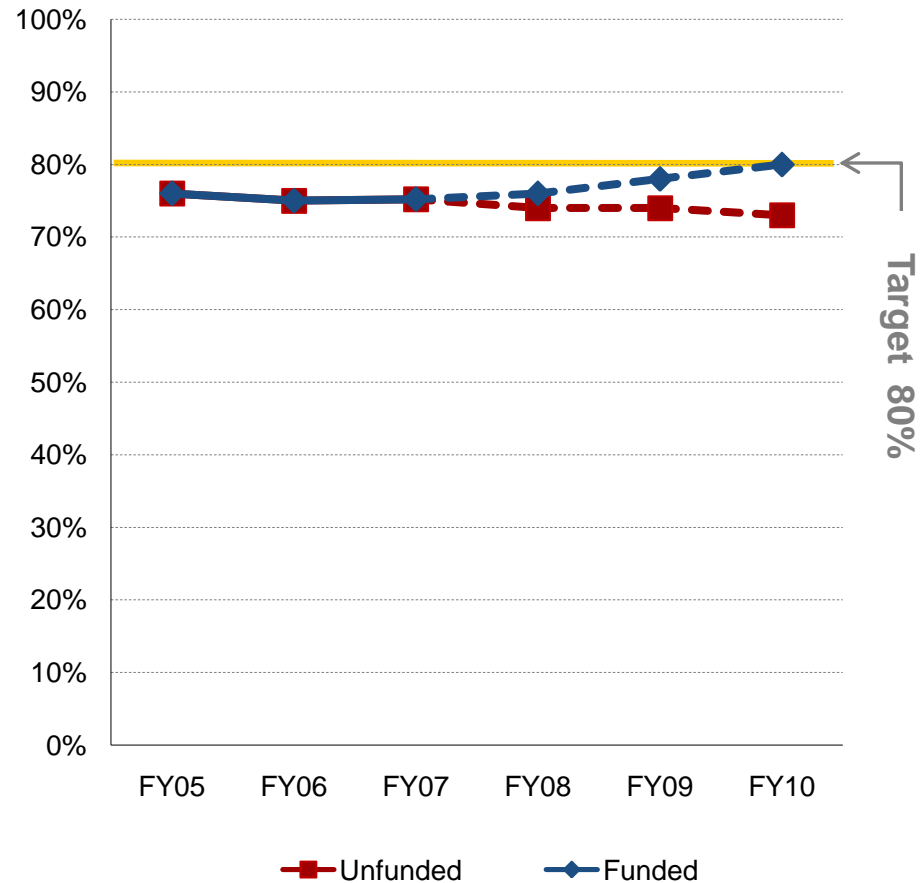
# Measure 1: Percentage of Residential Structure Fires Confined to the Room of Origin

## Key Strategies/Actions & Associated Budget

- Implement Phase 2 of four-person staffing plan
- Study alternatives for improving time taken for call-taking/processing and dispatch
- Study alternatives for improving turnout time
- Continue advocating sprinkler retrofitting of residential mid-rises and high-rises
- Develop plan for improving rural water supply sources

Third recruit class for FY09	\$1.6 million
CIP costs to establish an interim Travilah Fire Station on PSTA property	TBD
Annual personnel costs to operate an engine and EMS unit at interim Travilah Fire Station staffed 24/7 by six personnel	\$2.89 million
Cost to implement Phases 3 and 4 of four-person staffing plan (FY09-10)	\$6.5 million

\* Estimated Values



**MCFRS currently faces three major challenges; unmet response time goals, insufficient suppression resources, and insufficient staffing**



# Measure 1: CountyStat Analysis and Recommendations

## ▪ CountyStat Analysis

- Delineation between funded and unfunded projections is inconsistent with other Departmental Performance Plan projections
  - Funded - Yearly increases in funding
  - Unfunded – No additional funding or current level funding
- Historical data for this measure could be used to evaluate the impact of the Montgomery County sprinkler legislation

## ▪ CountyStat Recommendations

- Projections for headline measures should be made on basis of known funding commitments
- Conduct geospatial analysis of residential fires to uncover trends and align resources accordingly
- Include prevention efforts such as sprinkler fitting, inspections, and education within calculation of performance



# Measure 2: Response Time to Advanced Life Support and Structure Fire Incidents

## Key Strategies/Actions & Associated Budget

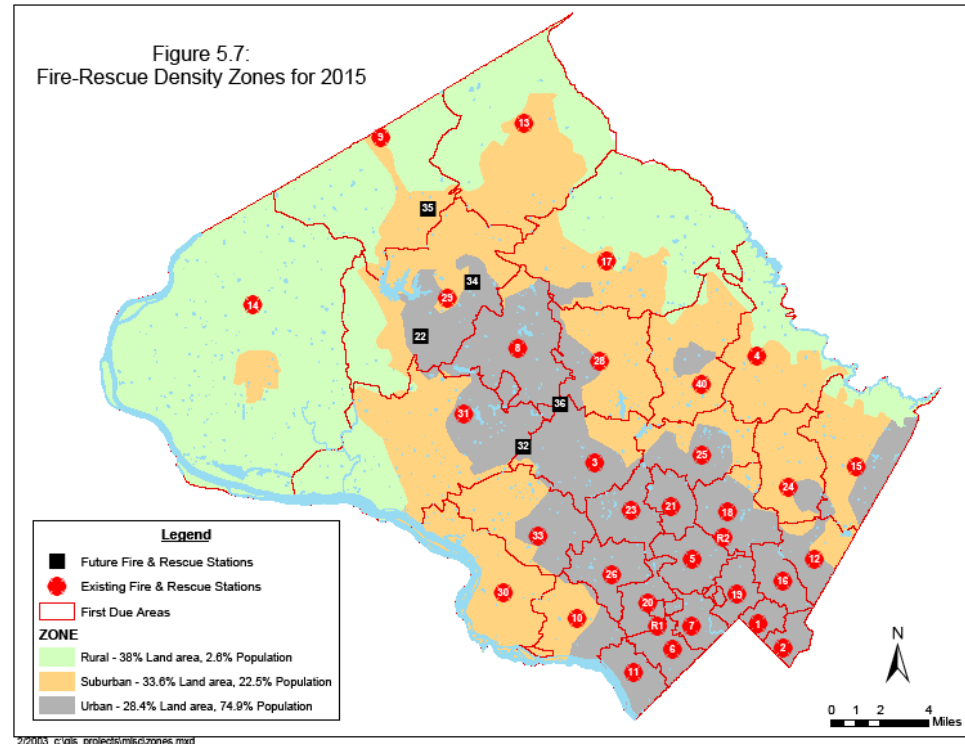
- Study alternatives for improving time taken for call-taking/processing and dispatch
- Study alternatives for improving turnout time
- Continue implementation of resource allocation initiatives addressing reduced travel time

Annual cost of initiating an EMS “flex” unit, including vehicle and staffing	\$600,000
Cost of additional positions at the ECC	TBD
Cost of developing and implementing more efficient ECC processes for call-taking and dispatch	TBD
Annual personnel costs to operate an engine and EMS unit at interim Travilah Fire Station staffed 24/7 by six personnel	\$2.89 million
Cost of new CAD and station alerting Technology	TBD
Cost to implement Phases 3 and 4 of four-person staffing plan (FY09-10)	\$6.5 million

\* Estimated Values

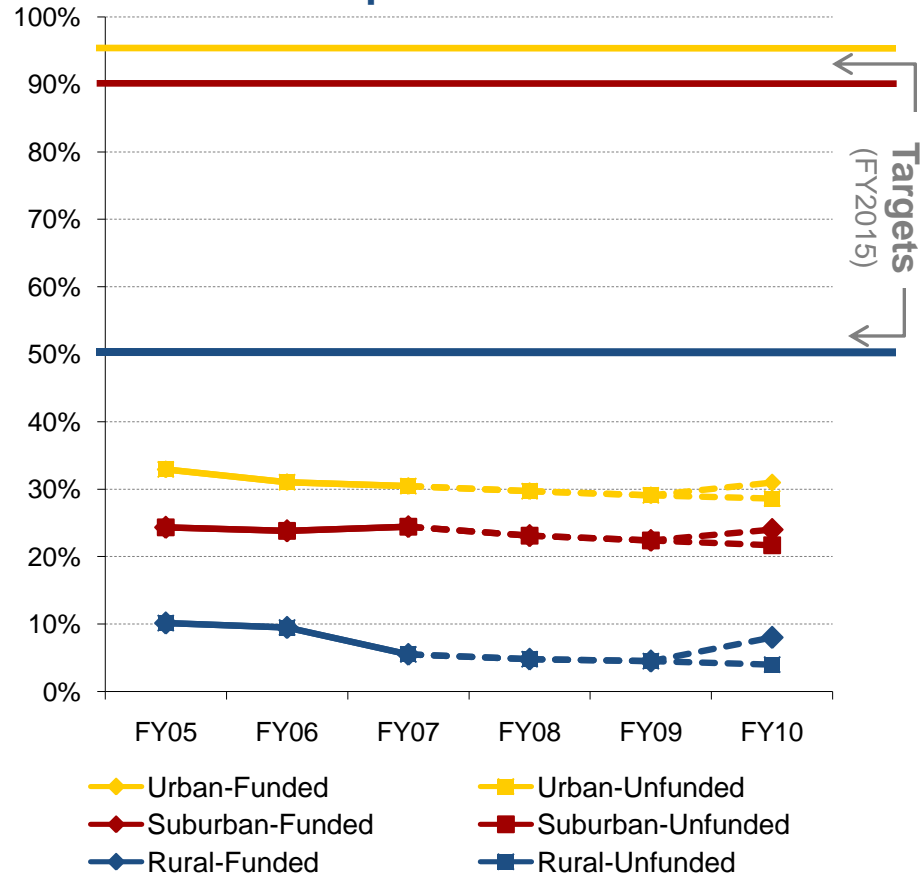
## Fire-Rescue Density Zones for 2015

Figure 5.7:  
Fire-Rescue Density Zones for 2015

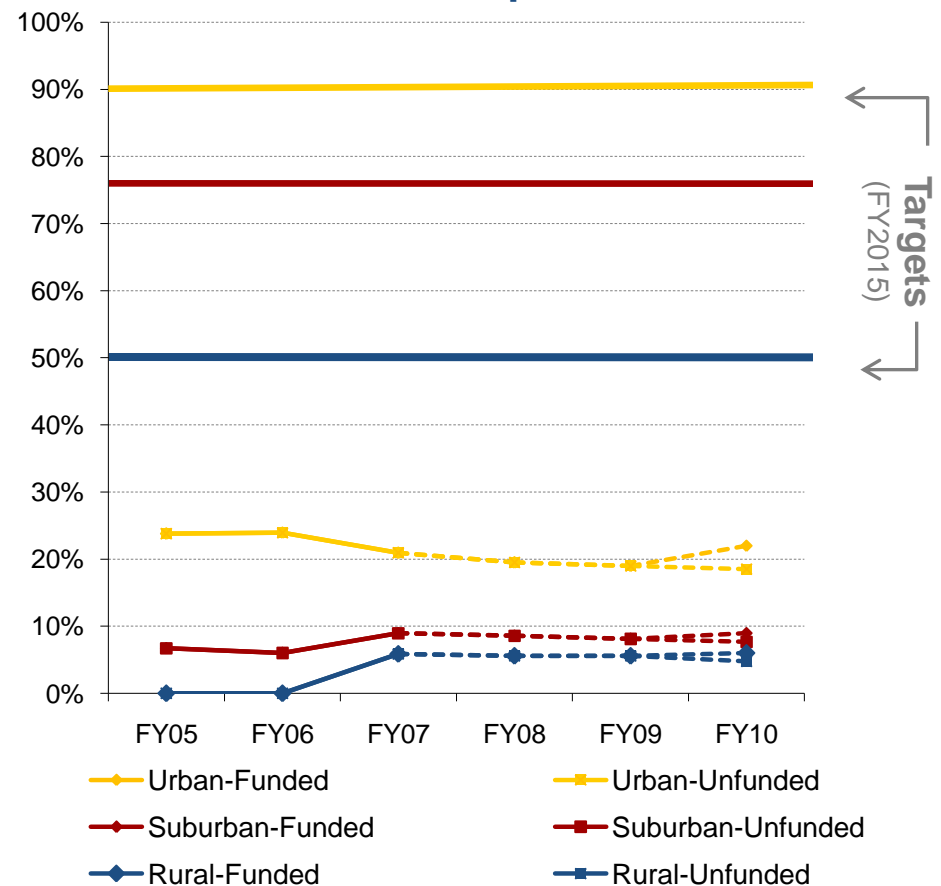


# Measure 2: Response Time to Advanced Life Support and Structure Fire Incidents

## ALS Response in 8 Minutes



## Structural Fire Response in 6 Minutes



## Measure 2: CountyStat Analysis and Recommendations

### ▪ **CountyStat Analysis**

- MCFRS process for the creation of unique identifiers for different geographic regions offers distinctive reflection of density-specific needs
- Delineation between funded and unfunded projections is inconsistent with other Departmental Performance Plan projections
- Although MCFRS response time is calculated differently than NFPA, national guidelines are an important barometer of performance

### ▪ **CountyStat Recommendations**

- Examine targets to determine feasibility of achieving targets and outline corrective actions for reducing response time
- Projections for headline measures should be made on basis of known funding commitments
- Conduct analysis of operations within each density to determine best practices
- Calculate difference between median response times and response time goals
- Disaggregate ECC dispatch times from MCFRS calculated response times



# Measure 3: Number of Residential Fire Deaths and Injuries

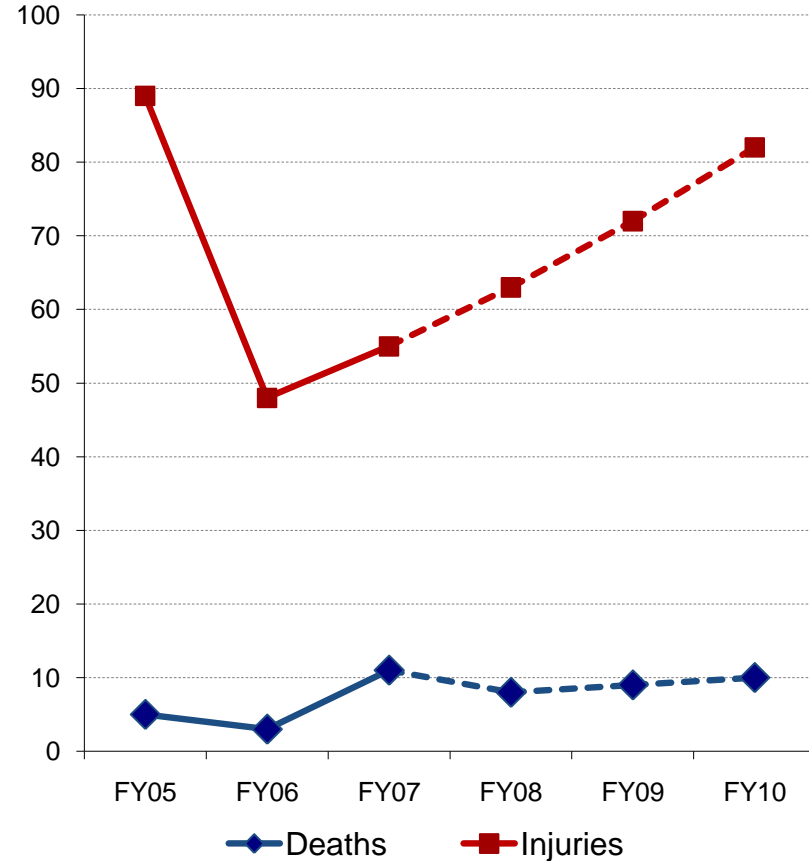
## Key Strategies/Actions & Associated Budget

- Begin implementation of recommendations in Senior Citizens Fire Safety Task Force first-year report. Add position to coordinate implementation of this initiative.
- Continue fire prevention and risk reduction programs focused on targeted populations as well as those programs focused on the County's population at large.

Annual cost (salary/benefits) of new position to coordinate seniors initiative	\$100,000
Annual programmatic operating costs for equipment, supplies, marketing materials, printing, etc.	\$250,000

\* Initiative Delayed Due to FY08 Cost-Savings Plan

\* Estimated Values



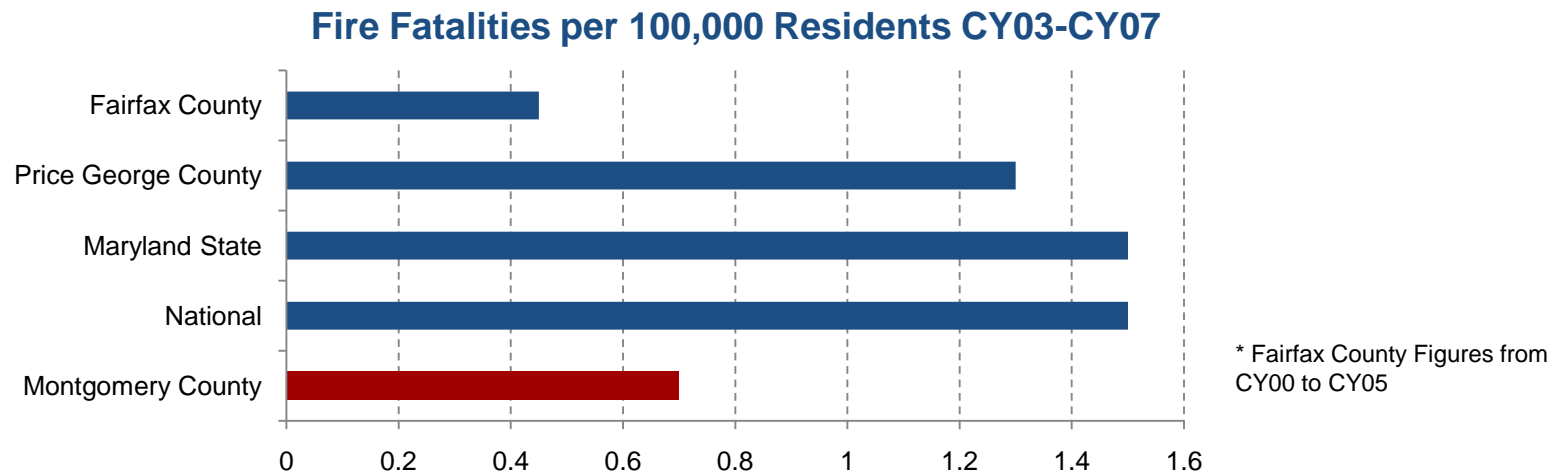
**MCFRS cite growing 'senior and immigrant populations' as the major contributor to expected higher than anticipated figures over the next two-three fiscal years and beyond**



## Measure 3: CountyStat Analysis and Recommendations

### CountyStat Analysis

- MCFRS has good historical data on fire fatalities



- Without historical data on injuries prior to FY05 it is difficult to determine if rates in FY05 or FY06 are more reflective of County residential fire injuries

### CountyStat Recommendations

- Identify reason for sudden drop in residential fire injuries from FY05 to FY06
- Consider normalizing historical figures against number of structural fires as well as population
- Define 'elderly' and 'immigrant population' in order to clearly identify their special needs





## Measure 4: Service Delivery Cost Per Primary Unit Response

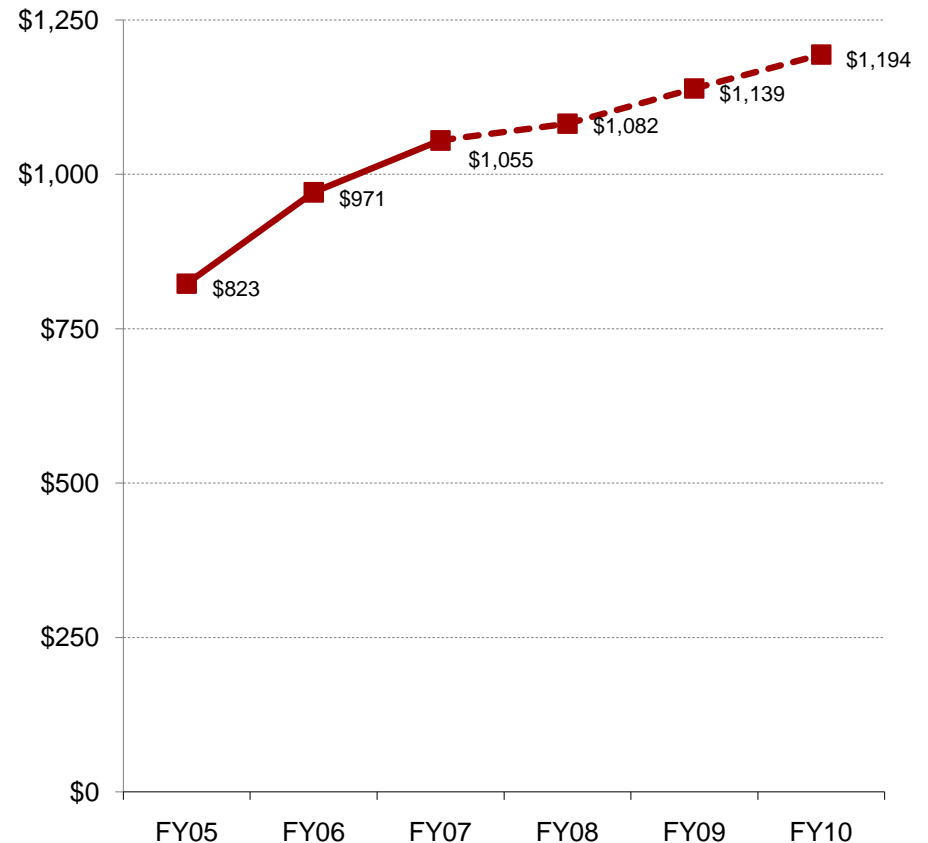
### Key Strategies/Actions & Associated Budget

- Continue community outreach programs to prevent the 911 call
- Establish MCFRS central maintenance facility where in-house maintenance can be provided cost-effectively
- Continue wellness, safety, and training programs to minimize insurance costs
- Construction of energy-efficient fire stations in Germantown (i.e., Station 22, 34)

Annual apparatus replacement (FY09 and FY10)

**\$10 Million  
Annually**

\* Estimated Values



Calculated by dividing the portion of overall budget associated with emergency response by the number of primary unit responses



## Measure 4: CountyStat Analysis and Recommendations

### ▪ **CountyStat Analysis**

- Currently the measure does not adjust for annual inflation
- MCFRS could consider including data on the number of responses per year to better capture real costs over time

### ▪ **CountyStat Recommendations**

- CountyStat with work with MCFRS to develop new efficiency measure(s)



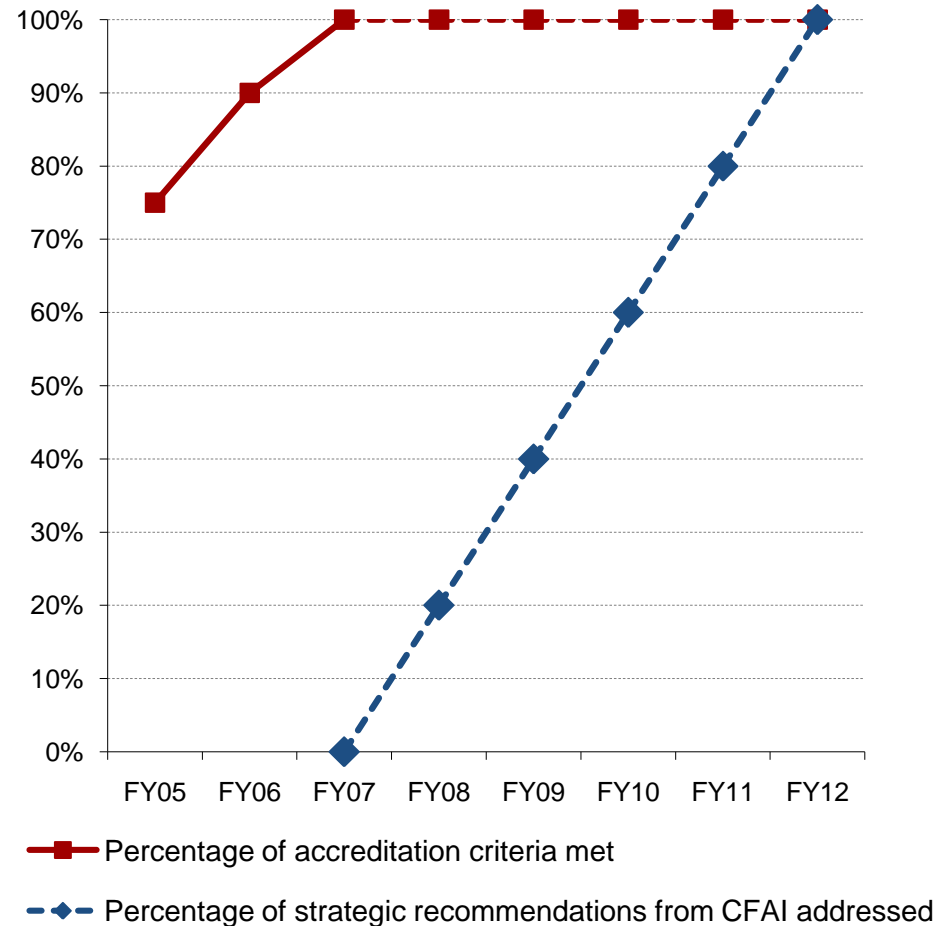
## Measure 5: Percentage of Accreditation Criteria Met

### Key Strategies/Actions & Associated Budget

- Begin 5-year initiative to address strategic recommendations provided by CFAI Peer Assessment Team in April 2007.
- Plan is to address about 20% of the CFAI recommendations annually for the five-year period.

CFAI Membership Five-Year Fee

\$8,500



**CFAI provides internationally recognized benchmarks to measure the delivery of fire and emergency services to a community**



# Measure 5: CountyStat Analysis and Recommendations

## ■ CountyStat Analysis

- Mapping CFAI Accreditation to NFPA could highlight best practices and areas for improvement
- Use of accreditation standards is inconsistent with other Departmental Performance Plan, however progress toward meeting recommendations is used in other Departments

## ■ CountyStat Recommendations

- Examine specific requirements for accreditation as basis for construction of headline measure
- MCFRS should continue to implement CFAI recommendations to improve performance
- Outline how CFAI recommendations work within existing MCFRS Strategic Plan and Master Plan
- Change language of measure to read “Percent of CFAI Strategic Recommendations Met”



# EMS Service Quality Measure Development

## MCFRS Initial Ideas

- Percent of incidents where EMS resources reached patient's side within X minutes.
  - Measure would address arrival of EMS resources at the patient's side (e.g., 10<sup>th</sup> floor apartment) vs. arrival of unit at incident scene
  - Related to Measure #2 addressing ALS response time

## CountyStat Analysis

- EMS incidents account for 78% in CY06 and 76% in CY07 of all incidents
- Performance measure should capture the quality and consistency of EMS
  - Response – Not only time but safe and efficient transportation
  - Patient Care – Provision of appropriate life saving services
- 2006 Emergency Medical Services: Performance Measure Project drafted 35 potential indicators of EMS performance that can serve as basis for establishing measure



# Prevention Programming Measure Development

## MCFRS Initial Ideas

- Percent of population aware of or participating in fire safety and risk reduction educational programs
- Survey results related measure – current on-line fire safety survey
- Risk reduction for seniors related measure

## CountyStat Analysis

- Track participation in prevention programs across Montgomery County to highlight best practices and areas for improvement
- Track incidents by type in order to measure impact of prevention programs on specific types of incidents or better tailor programming



# Efficiency Measure Development

## MCFRS Initial Ideas

- Departmental: Operating expenditures per capita
- Operations: Percentage of population rating emergency response performance as excellent or outstanding
- Apparatus: Cost per mile driven – includes fuel and maintenance
- Code Enforcement: Cost per inspection (by occupancy type)

## CountyStat Analysis

- Overtime provides an opportunity to measure efficiency of MCFRS internal functions (i.e. training, personnel utilization)



## Efficiency Topic: Overtime

### ▪ CountyStat Analysis

- MCFRS generates 50% more overtime than any other department
- 15.6% of total MCFRS payroll is overtime

### Correlation Between Overtime Wages and Hours

Fiscal Year	# of Employees with OTP	Total OTP hours	Total OTP wages	Average wage per hour	Correlation coefficient
2003	1,007	147,407.34	\$5,371,316.42	\$36.44	0.350
2004	1,005	242,644.10	\$9,172,572.87	\$37.80	0.223
2005	1,001	332,319.10	\$13,452,010.72	\$40.48	0.259
2006	1,107	381,034.29	\$16,305,061.42	\$42.79	0.340
2007	1,165	337,216.55	\$15,307,042.62	\$45.39	0.386





## Characteristics of MCFRS Overtime, FY2007

**In a given pay period:**

- **40% - 57% of employees claimed some amount of overtime**
- **21% - 31% of employees took annual leave**
- **16% - 21% of employees took sick leave**
  
- **10% - 15% of employees claimed both overtime and annual leave**
- **6% - 10% of employees claimed both overtime and sick leave**
- **16% - 22% of employees claimed overtime and either annual leave or sick leave**

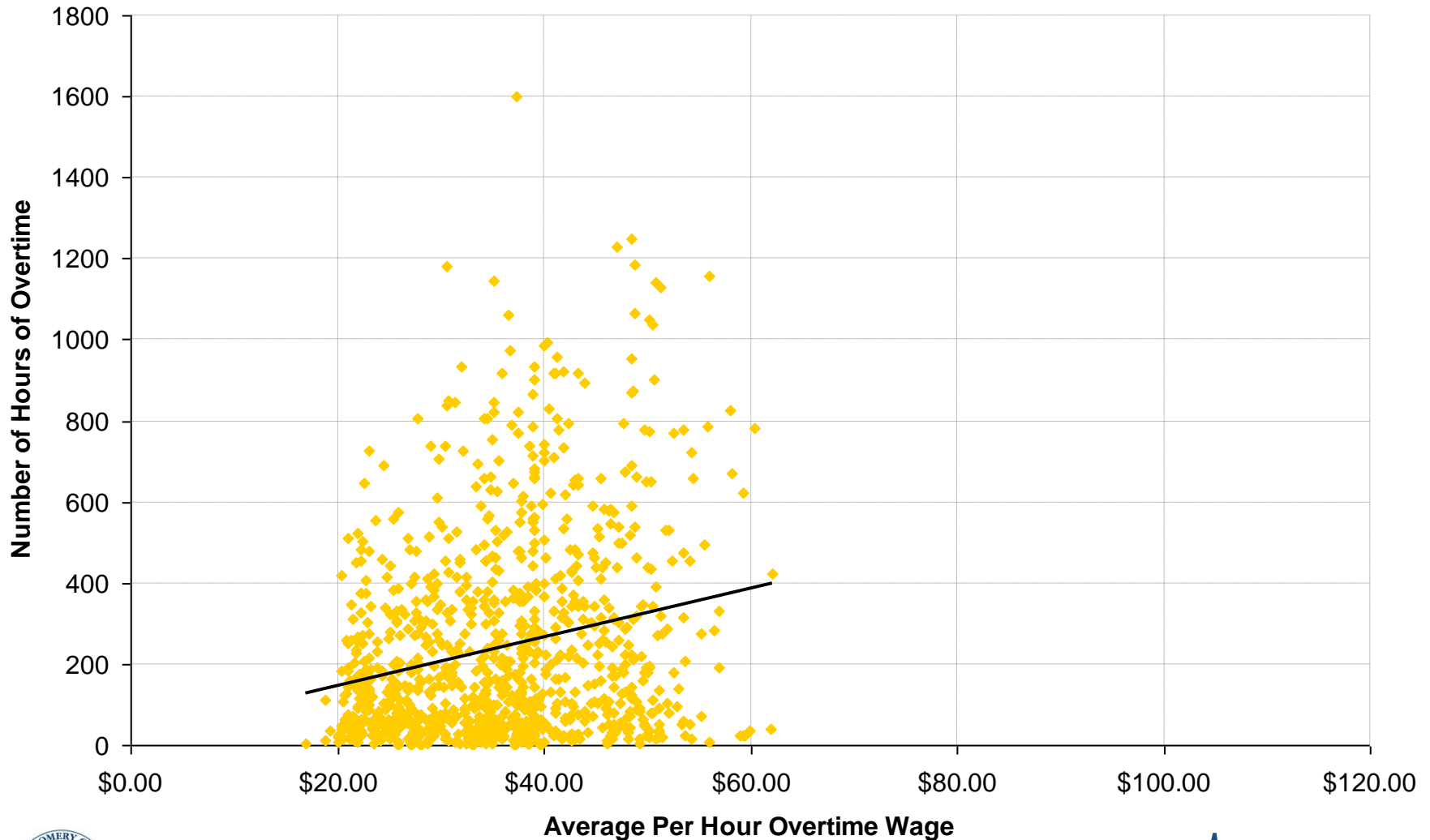
**Across County, employees are eligible for overtime pay during pay periods in which they take leave**



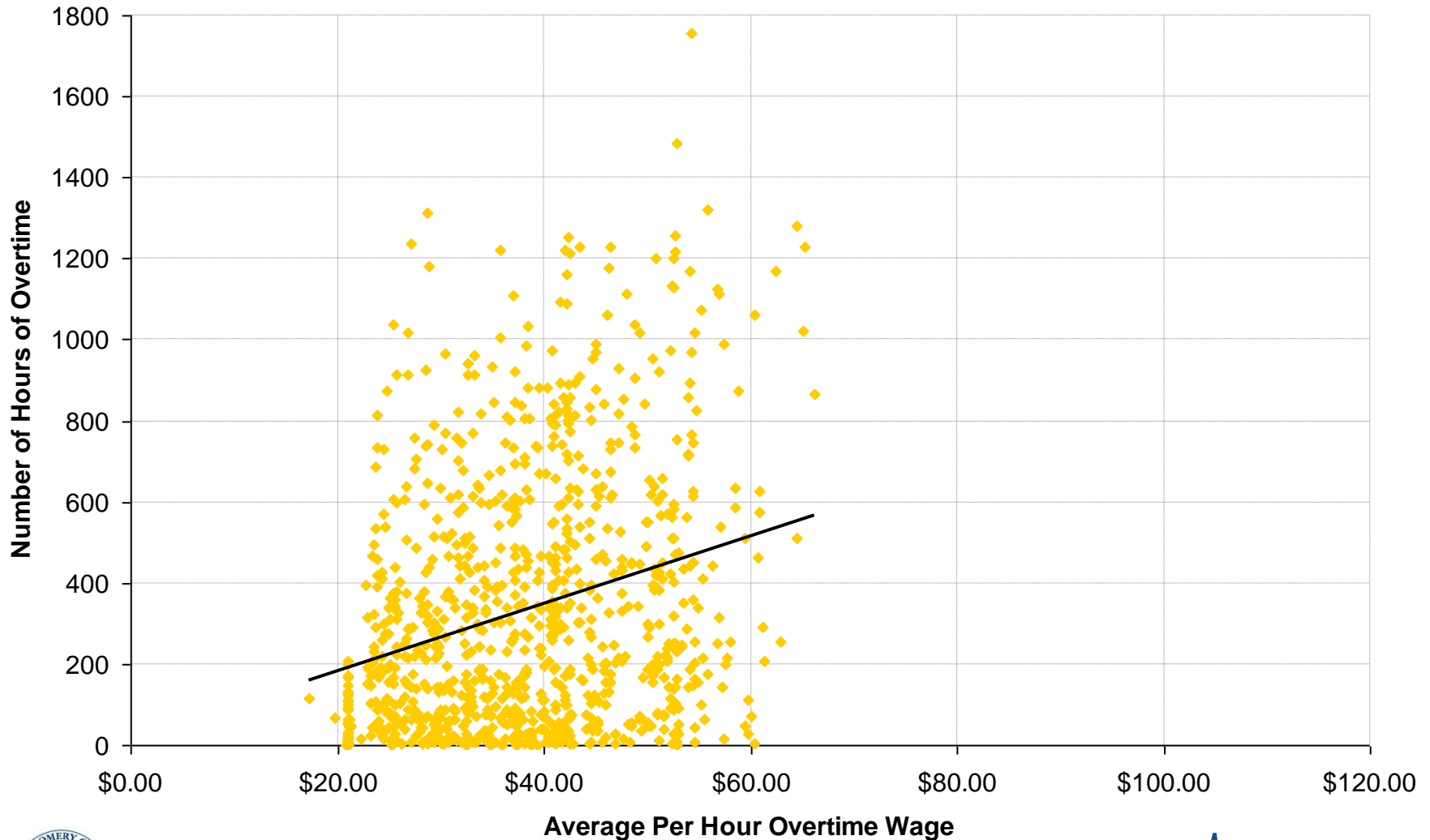
# MCFRS Overtime: Average Overtime Wage vs. Hours of Overtime Worked FY03



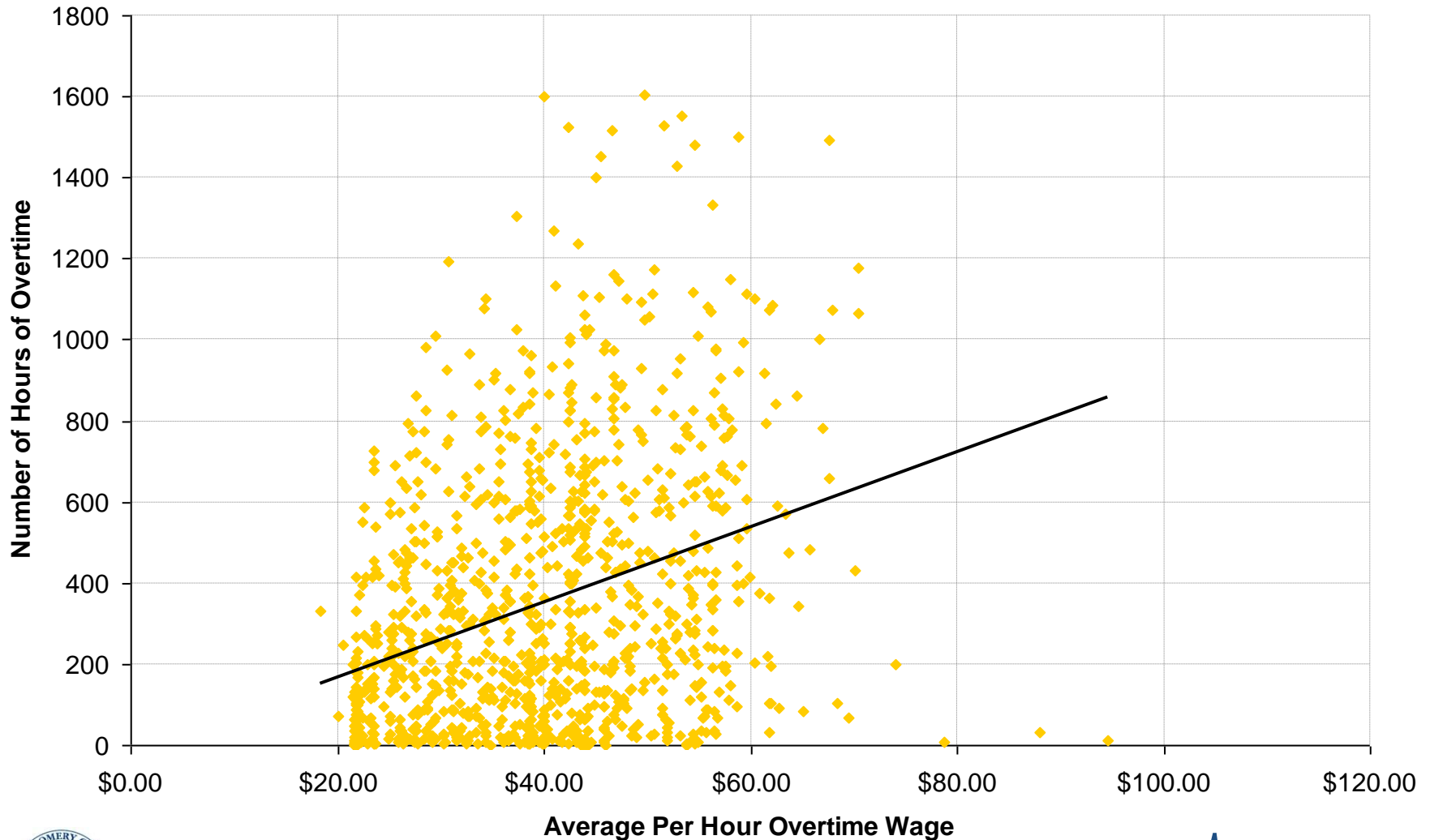
# MCFRS Overtime: Average Overtime Wage vs. Hours of Overtime Worked FY04



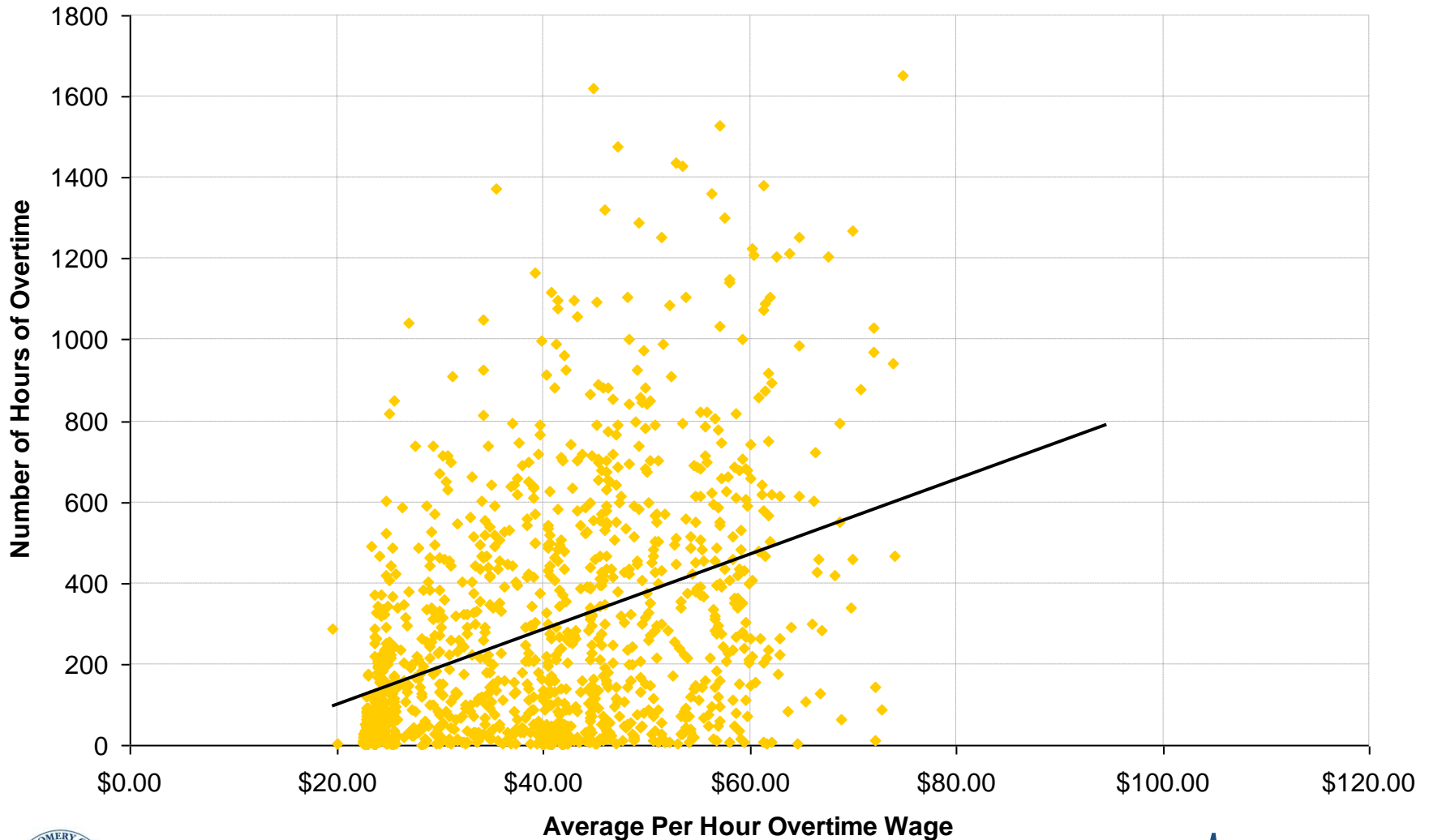
# MCFRS Overtime: Average Overtime Wage vs. Hours of Overtime Worked FY05



# MCFRS Overtime: Average Overtime Wage vs. Hours of Overtime Worked FY06



# MCFRS Overtime: Average Overtime Wage vs. Hours of Overtime Worked FY07



# **Wrap-Up and Follow-Up Items**

**Overtime Follow-Up Meeting**

**Performance Plan Updating**

